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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/660,463	09/11/2003	Esa Maatta	915-006.023	4945
4955	7590	06/28/2005	EXAMINER	
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP BRADFORD GREEN BUILDING 5 755 MAIN STREET, P O BOX 224 MONROE, CT 06468			LEE, JINHEE J	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 06/28/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

28

**Office Action Summary**

Application No.

10/660,463

Applicant(s)

MAATTA ET AL.

Examiner

Jinhee J. Lee

Art Unit

2831

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 13 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-11 and 13-31 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-11 and 13-31 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1, 3-11 and 13-31 are rejected under 35 U.S.C. 102(e) as being anticipated by Helot et al. (US006437973B1).

Re claim 1, Helot et al. discloses a hinge mechanism, for a folding casing of an electronic device consisting of at least two casing parts, each of said casing parts including electronic components, comprising: at least a hinge body component (42, 52 the back or outer sides for example); and flexible electrical conductor means (168 for example) for connecting said electronic components included by different casing parts (22, 28 for example); wherein said hinge body component provides two pivot axes, which are separated at a predefined distance so that a total pivot angle for folding the two casing parts results from summation of individual pivot angles about each of which said respective pivot axis is pivoted (see figure 1); and wherein said hinge body

component provides a passage for accepting said flexible electrical conductor means (see figure 1).

Re claim 3, Helot et al. discloses a hinge mechanism, wherein each pivot axis is pivoted independently (see figure 1).

Re claim 4, Helot et al. discloses a hinge mechanism, wherein bending of said flexible electrical conductor means is obtained in a plane substantially perpendicular to said pivot axes (see figure 1).

Re claim 5, Helot et al. discloses a hinge mechanism, further comprising: - inner hinge cover component (42, 52 the inner or front sides for example); wherein said inner hinge cover component is designed to fit into said hinge body component such that said hinge body component in conjunction with said inner hinge cover component forms said passage and said flexible electrical conductor means is enclosed by said hinge body component and said inner hinge cover component (see figures 1 and 2).

Re claim 6, Helot et al. discloses a hinge mechanism, further comprising: a set of brackets (130 with 190, 132, 140, 142, connectors for example); wherein said brackets are provided for being mounted to said at least two casing parts; wherein said brackets engage in said hinge body component such that said two pivot axes are established thereby (see figures 1 and 2).

Re claim 7, Helot et al. discloses a hinge mechanism, wherein said brackets (130 with 190 for example) have journal members (43, 49 for example) which interact with journal acceptance members provided in the hinge body component to establish said pivot axes (see figure 4).

Re claim 8, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are freely movable within said hinge mechanism to allow compensation of shortening and extension of said flexible electrical conductor means caused by bending thereof due to pivoting (see figure 2 and column 3 line 50 according to the numbering in the middle).

Re claim 9, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are routed substantially tangential to end portions of said hinge body component in a close position of said folding casing (see figures 1 and 2).

Re claim 10, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are routed substantially at bending angles against end portions of said hinge body component in an open position of said folding casing; wherein said bending angles correspond to said individual pivot angles (see figures 1 and 2).

Re claim 11, Helot et al. discloses an electronic device with a folding casing being constituted by at least two casing parts, which are joined by a hinge mechanism comprising: at least a hinge body component (42, 52 the back or outer side for example); and flexible electrical conductor means (168 for example) for connecting said electronic components included by the different casing parts; wherein said hinge body component provides two pivot axes, which are separated at a predefined distance so that a total pivot angle for folding the two casing parts results from summation of individual pivot angles, about which each respective pivot axis is pivoted (see figure 1);

and wherein said hinge body component provides a passage for accepting said flexible electrical conductor means (see figures 1 and 2).

Re claim 13, Helot et al. discloses an electronic device, wherein each pivot axis is pivoted independently (see figure 1).

Re claim 14, Helot et al. discloses an electronic device, wherein bending of said flexible electrical conductor means is obtained in a plane substantially perpendicular to said pivot axes (see figure 1).

Re claim 15, Helot et al. discloses an electronic device, further comprising: an inner hinge cover component (42, 52 inner or front side for example); wherein said inner hinge cover component is desired to fit into said hinge body component such that said hinge body component in conjunction with said inner hinge cover component form said passage and said flexible electrical conductor means is enclosed by said hinge body component and said inner hinge cover component (see figures 1 and 2).

Re claim 16, Helot et al. discloses an electronic device, further comprising: a set of brackets (130 with 190, 132, 140, 142 for example); wherein said brackets are provided for being mounted to said at least two casing parts; wherein said brackets engage in said hinge body component such that said two pivot axes are established thereby (see figures 1 and 2).

Re claim 17, Helot et al. discloses an electronic device, wherein said brackets (130 with 190 for example) have journal members (43 and 49 for example) which interact with journal acceptance members provided in the hinge body component to establish said pivot axes (see figure 4).

Re claim 18, Helot et al. discloses an electronic device, wherein said flexible electrical conductor means are freely movable within said hinge mechanism to allow for compensation of shortening and extension of said flexible electrical conductor means caused by bending thereof due to pivoting (see figure 2 and column 3 line 50).

Re claim 19, Helot et al. discloses an electronic device, wherein said flexible electrical conductor means are routed substantially tangential to end portions of said hinge body component in a close position of said folding casing (see figures 1 and 2).

Re claim 20, Helot et al. discloses an electronic device, wherein said flexible electrical conductor means are routed substantially at bending angles against end portions of said hinge body component in an open position of said folding casing; wherein said bending angles correspond to said individual pivot angles (see figures 1 and 2).

Re claim 21, Helot et al. discloses an electronic device that is a portable electronic terminal (see figure 1).

Re claim 22, Helot et al. discloses a hinge mechanism, for a folding casing of an electronic device consisting of at least two casing parts, each of said casing parts including electronic components, comprising: at least a hinge body component (42, 52 the back or outer sides for example); and flexible electrical conductor means (168 for example) for connecting said electronic components included by different casing parts (22, 28 for example); wherein said hinge body component is generally U-shaped (when folded for example) forming two legs so as to provide two pivot axes at the end of each leg, the two pivot axes being separated at a predefined distance, wherein each of the

pivot axes is disposed on one of the two casing parts, and wherein said hinge body component provides a passage for accepting said flexible electrical conductor means (see figure 1).

Re claim 23, Helot et al. discloses a hinge mechanism, wherein a total pivot angle results from summation of individual pivot angles about each of which said respective pivot axis is pivoted (see figure 1);

Re claim 24, Helot et al. discloses a hinge mechanism, wherein each pivot axis is pivoted independently (see figure 1).

Re claim 25, Helot et al. discloses a hinge mechanism, wherein bending of said flexible electrical conductor means is obtained in a plane substantially perpendicular to said pivot axes (see figure 1).

Re claim 26, Helot et al. discloses a hinge mechanism, further comprising: - inner hinge cover component (42, 52 the inner or front sides for example); wherein said inner hinge cover component is designed to fit into said hinge body component such that said hinge body component in conjunction with said inner hinge cover component forms said passage and said flexible electrical conductor means is enclosed by said hinge body component and said inner hinge cover component (see figures 1 and 2).

Re claim 27, Helot et al. discloses a hinge mechanism, further comprising: a set of brackets (130 with 190, 132, 140, 142, connectors for example); wherein said brackets are provided for being mounted to said at least two casing parts; wherein said brackets engage in said hinge body component such that said two pivot axes are established thereby (see figures 1 and 2).



Re claim 28, Helot et al. discloses a hinge mechanism, wherein said brackets (130 with 190 for example) have journal members (43, 49 for example) which interact with journal acceptance members provided in the hinge body component to establish said pivot axes (see figure 4).

Re claim 29, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are freely movable within said hinge mechanism to allow compensation of shortening and extension of said flexible electrical conductor means caused by bending thereof due to pivoting (see figure 2 and column 3 line 50 according to the numbering in the middle).

Re claim 30, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are routed substantially tangential to end portions of said hinge body component in a close position of said folding casing (see figures 1 and 2).

Re claim 31, Helot et al. discloses a hinge mechanism, wherein said flexible electrical conductor means are routed substantially at bending angles against end portions of said hinge body component in an open position of said folding casing; wherein said bending angles correspond to said individual pivot angles (see figures 1 and 2).

### ***Response to Arguments***

3. Applicant's arguments filed 6/13/05 have been fully considered but they are not persuasive.

In response to applicant's arguments that prior art does not teach "total pivot angle for folding the casing parts is the summation of the individual pivot angles about

each of which said respective pivot axis is provided". Examiner disagrees. This limitation states that we need to add two angles to get a total angle about an axis. In other words, the claim language states that the "total pivot angle" can be obtained by adding two angles measured from somewhere of the axis. The prior art (Helot et al.) does meet this limitation.

### ***Conclusion***

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jinhee J. Lee whose telephone number is 571-272-1977. The examiner can normally be reached on M, T, Th and F at 6:30AM-5PM.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean A. Reichard can be reached on 571-272-2800 ext. 31. The fax phone

Art Unit: 2831

number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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